Topic 8: *Nutrition: Eating/Meals for Older Adults*

Competencies

1. Discuss demographics related to nutritional issues in older adults.
2. Assess diet history and nutritional status, with special attention to cultural, ethnic, or religious preferences.
3. Evaluate anorexia in older adults.
4. Identify contextual factors that contribute to optimal dining experiences.
5. Plan care to maximize the self-feeding capacity of an older individual.
6. Plan mealtime care for an older individual with cognitive and/or physical impairments.

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Content Outline

1. **Discuss demographics related to nutritional issues in older adults.**

   In the United States, an estimated 31% of males and 61% of females aged 65 years and older have annual incomes of $10,000 or less, which impacts adversely on their access to food and food choices.

   Among those 75 years old and older, an estimated 40% of men and 30% of women are at least 10% underweight. [Their Body Mass Index (BMI) is low.] Approximately 16% of noninstitutionalized older Americans consume less than 1,000 kcal per day. Malnutrition may be present in persons who are overweight.

   Of men aged 75 years and older, 56.5% could be considered overweight (BMI > 25), and 13.2% are obese (BMI > 30). Among older women, 52.3% are overweight and 19.2% are obese.

   Nearly 50% of persons aged 65 years and older are clinically malnourished at the time of admission to a hospital, and two-thirds are malnourished at the time of discharge.

   Disease, stress, injury, and chronic drug use can all increase an older adult's nutritional needs. Lack of exercise and overeating are major factors resulting in increased weight.

2. **Assess diet history and nutritional status, with special attention to cultural, ethnic, or religious preferences.**

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Content Outline

A three-day food diary, with one day being a weekend day, is the best method of obtaining a diet history. Persons regularly underestimate the amount or portion of food they eat. A nutritionist or dietician can individualize an assessment.

For community dwelling persons or for rapid screening, use "Determine Your Nutritional Health," a National Nutritional Screening Initiative tool. (See Instrument Scales in this chapter.)

Track weights and weight changes. Obtain baseline measurements of height and weight; use a standard scale and tape measure. Do not rely on self-reports of height and weight. Individuals often give data that are more representational of earlier (midlife) values. Thereafter, weight should be measured weekly for individuals at risk, and monthly for others. Height should be measured annually as changes in height may be indicators of osteoporosis. Calculate a person's Body Mass Index (BMI) by dividing weight (in kilograms) by height (in meters) squared:

$$\text{BMI} = \frac{\text{weight(kg)}}{\text{height(m)}^2}$$

Physical assessment should focus on: skin turgor; skin lesions (especially pressure and nonhealing ulcers); changes in skin color; thin or brittle hair; muscle wasting; oral status (including loose teeth or poorly fitting dental appliances); state of hydration; oral lesions, hyperplasia of gums, or fissures around lips; enlarged, smooth, or beefy red tongue; poor hygiene. Overweight individuals are prone to many chronic illnesses and functional losses.

Other serologic parameters to assess include: albumin, total protein (an indicator of nutrition but falsely elevated in dehydrated persons), BUN/creatinine ratio (for hydration and renal function), complete blood count (CBC, for signs of anemia and to calculate the lymphocyte count, which is another indicator of malnutrition), and blood glucose (for hypo- or hyperglycemic states). Further tests include: serum transferrin, pre-albumin, iron stores, ferritin, vitamin B12, and lipids (with special attention to hypocholesterolemia as an indicator of a starvation state). Dyslipidemia and elevated triglycerides place the obese patient at risk for heart disease and stroke.

Functional status should be performance-based and must include an observation of the individual eating assorted types of food at different times of day, and manipulating various types of tableware (e.g., silverware, drinking glasses, cups, mugs, and serving dishes).

Inconsistencies between the diet reported and the biochemical and physical parameters of elderly persons may indicate food insecurity (inability to obtain or prepare food because of poverty or inadequate cooking or food storage equipment). Lack of congruence may also be indicative of neglect or abuse by caregivers or the inability of caregivers to manage mealtimes.

Certain religious groups observe rituals regarding the preparation, blessing, and serving of meals. For example, Moslems, Orthodox Jews, and Seventh Day Adventists all observe highly prescriptive protocols for the preparation of

meat. Food may also have curative powers or religious meaning for some groups.

Cultural or ethnic practices regarding food use may vary within groups, sects, or nations, and therefore cannot be generalized.

Families develop traditions regarding mealtimes. Knowledge of these traditions may facilitate eating. For example, some Italian families eat hot food first and serve cold food (e.g., salad) last.

3. Evaluate anorexia in older adults.

Anorexia in older adults has multiple causes that differ from those seen in younger individuals. A principal cause of disinterest in eating is medications. Nurses need to assess all medications for side effects that may include: dehydration, early satiety, disinterest in eating, altered sense of taste, change in amounts of saliva produced. Commonly prescribed medications that may cause these effects include most diuretics, digoxin, some selective serotonin reuptake inhibitors (SSRIs), benzodiazepines, opiates, thyroxine, antihistamines, chemotherapeutic agents, and some antibiotics.

Another critical issue to explore when an individual is not eating is depression. Lack of interest in eating is one of the classic signs of depression in older persons and should always be explored. A baseline depression screening assessment may reveal this problem—for example, the short form of the Geriatric Depression Scale (Sheikh and Yesavage,

1986). (See Topic 6, Instruments/Scales.) Nurses may also ask the individual, "Do you feel sad or blue?" "What don't you eat now that you used to enjoy eating?" as good screening questions for depression.

4. **Identify contextual factors that contribute to optimal dining experiences.**

   Within institutional settings, if eating in the dining room is not possible, decreased "traffic" in the elderly person's room and fewer interruptions during meals contribute to greater amounts of food eaten. Remove all noxious articles and smells.

   Normalize the dining experience by removing the food from the tray and placing it on a table; using a tablecloth or placemats of darker or contrasting color; and setting the table with flatware, glasses, and dinnerware instead of disposable items.

   Make certain that hot food is hot and cold food is cold. If possible, some portion of food preparation should take place in an area close to where the food is served. The olfactory experience of smelling food as it is prepared acts as a strong cue to eating.

   Avoid extra noise in the room. Direct conversation toward the individuals receiving their meal, not toward other staff members who may be present. Lighting should be bright but indirect.

In institutions where congregate dining is the norm, don't forget that some persons prefer to dine alone. Family-style dining (food served in common dishes from which individuals choose servings) may also serve as a more normal context for meals. Encourage staff, family, or friends to dine with the individual, if that is his or her wish.

5. **Plan care to maximize the self-feeding capacity of an older individual.**

   Have the individual sit in an armchair rather than on a bed or in a wheelchair. Both feet should be on the floor. If sitting posture is poor, refer to the occupational therapist for adaptive seating devices.

   Note the condition of the individual's mouth. Poor oral hygiene, loose or poorly fitting dental appliances, carious teeth, or periodontal disease makes eating unpleasant and ineffective. Refer the individual to a dentist or dental hygienist.

   The individual should be seated in a slightly chin-tucked position. The head should not hyperextend, unless the speech pathologist, physician, or advanced-practice nurse has specifically ordered this position.

   Cue the individual whenever needed. The nurse's hand, placed over the older person's hand, assists in reminding the individual of the self-feeding routine. Pantomime gestures may be helpful. Having a more able person (staff or family member or another patient) sit across from the individual offers a model of eating behavior.

Obtain adaptive devices, if necessary, from the occupational therapist. Make certain they are clean and readily available. Sports bottles are helpful to allow self-hydration. Have the individual use personal assistive devices: eyeglasses, hearing aid, dentures. Use straws and cups with lids since many older adults suffer from tremors.

Allow the individual time to self-feed. Use finger foods as necessary. The dietician may be able to serve food in such a manner that it is kept hot or cold, as needed.

6. **Plan mealtime care for an older individual with cognitive and/or physical impairments.**

   All individuals who consume fewer calories than needed to support metabolism should be assessed for possible unrecognized diseases or problems (e.g., anorexia related to pneumonia or digoxin toxicity). Assess for the possibility of depression. Failure to eat is not normal behavior.

   Allow the individual to eat smaller, more frequent meals. If the individual prefers small amounts of food, do not deliver regular-size portions; they may cause an aversion to food. Allow the individual to consume finger foods.

   Persons with cognitive impairments may need cuing to eat. They may not recognize food or eating implements. They may be unable to express food preferences (this information should be obtained from a reliable informant). Short-term memory loss may cause persons to forget they have eaten, and they may request to eat over and over. To

individuals with severe arthritis and other pain-producing illnesses, offer pain medication prior to meals.

If another person is assisting the individual with meals, the caregiver should sit next to or across from the individual, facing him or her.

Never use a syringe to feed an individual. If an individual needs that much assistance with the stages of swallowing, most likely neuromuscular deficits are not allowing protection of the upper airway. Aspiration will eventually result.

In institutional settings, schedule staff members' meals at different times than patient meals.

Do not make an older person feel that feeding him or her is a burden.

Topic 8: *Nutrition: Eating/Meals for Older Adults*

Instruments/Scales

A. For assessing nutritional risk (see page 8-12):

National Nutritional Screening Initiative's, **"Determine Your Nutritional Health"**

White, J. V., Ham, R. J., Lipschitz, D. A., Dwyer, J. T., and Wellman, N. S. (1991). Consensus of the Nutrition Screening Initiative: Risk Factors and Indicators of Poor Nutritional Status in Older Americans. *Journal of the American Dietetic Society, 91,* 783–787.

B. For oral health:

Brief Oral Health Status Examination (BOHSE)

Kayser-Jones, J., Bird, W. F., Paul, S. M., and Schell, E. (1995) An Instrument to Assess the Oral Health Status of Nursing-Home Residents. *The Gerontologist, 35,* 814–824.

C. For functional eating status for persons with cognitive impairments:

Global Deterioration Scale (GDS)

Reisberg, B., Ferris, S. H., deLeon, M. J., and Crook (1982). The Global Deterioration Scale. *American Journal of Psychiatry, 139,* 1136–1139.

D. For functional eating status for persons with physical impairments:

Barthel Index

Mahoney, F. I., and Barthel, D. W. (1965). Functional Evaluation: The Barthel Index. *Maryland State Medical Journal, 14*(2): 61–65.

E. For persons with cognitive impairment who refuse food:

Edinburgh Feeding Evaluation in Dementia Scale

Watson, R. (1994). Measuring Feeding Difficulty in Patients with Dementia: Replication and Validation of the EdFED Scale #1. *Journal of Advanced Nursing, 19,* 850–855.

Instruments/Scales

F. For evaluation of capacity for eating:

Evaluation of Oral Feeding

Stratton, M. (1981). Behavioral Assessment Scale of Oral Functions in Feeding. *American Journal of Occupational Therapy, 35,* 719–721.

G. For clinical evaluation of swallowing capacity, referral to a speech pathologist, and swallowing studies:

Amella, E. J. (1999). Dysphagia: The Differential Diagnosis in Long-Term Care. *Lippincott's Primary Care Practice,* 3(2).

H. For evaluation of depression (see Topic 5):

Sheikh, J. I., and Yesavage, J. A. (1986). Geriatric Depression Scale (GDS): Recent Findings and Development of Shorter Version. *Clinical Gerontologist,* 5, 165–173.

Instruments/Scales

NSI CHECKLIST TO DETERMINE YOUR NUTRITIONAL HEALTH*

The older adult fills out the following questions, which have associated points.

	YES
I have an illness or condition that made me change the kind or amount of food I eat.	2
I eat fewer than two meals/day.	3
I eat few fruits or vegetables, or milk products.	2
I have three or more drinks of beer, liquor, or wine almost everyday.	2
I have tooth or mouth problems that make it hard for me to eat.	2
I don't always have enough money to buy the food I need.	4
I eat alone most of the time.	1
I take three or more different prescribed or OTC drugs a day.	1
Without wanting to, I have lost or gained 10 pounds in the last 6 months.	2
I am not always physically able to shop, cook, or feed myself.	2
Total nutritional score	_____

Scoring:
0–2 indicates good nutrition
3–5 indicates moderate risk
6 or more indicates high nutritional risk

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Instruments/Scales

HYDRATION ASSESSMENT CHECKLIST*

Pertinent items are checked off. The greater the number of factors or severity of factors checked off, the greater the risk for diminished hydration.

I. Symptoms of hydration warranting immediate medical and nursing interventions (fever, thirst, dry warm skin, furrowed tongue, decreased urinary output, etc.)

II. Associative factors (>85 years old, physical immobility, cognitive impairment, fluid intake of 1500cc or less, unaware of thirst)

III. Problems of increasing vulnerability (medical problems such as osteoporosis, CHF, dementia, etc.)

IV. Dietary restrictions of fluids, salt, potassium, protein

V. Medications (diuretics, tricyclic antidepressants, laxatives)

VI. Medical history of dehydration, infections, difficulty swallowing, etc.

VII. Immediate return from one-day hospitalizations, dental or eye surgery, NPO procedures, etc.

VIII. Lab reports showing steady increases in sodium, blood urea nitrogen, creatinine, hematocrit, serum osmolality, and urine specific gravity

*Zembrzuski, C. D. (1997). A Three-Dimensional Approach to Hydration of Elders: Administration, Clinical Staff, and In-Service Education. *Geriatric Nursing, 18*(1), 20–26. Used by permission.

Topic 8: *Nutrition: Eating/Meals for Older Adults*

Case Study

Ms. J is an 84-year-old Hispanic woman who was brought to the hospital after falling and breaking her right hip. She is now two days postoperative after an Open Reduction with Internal Fixation (ORIF) with placement of a hip prosthesis. She is awake and alert, but is in moderate pain. Ms. J refuses to get out of bed for any activity except to use the toilet. Her family supports her decisions. As her primary nurse, you also note her oral intake to be poor; she is eating less than 25% of lunch and supper, and 80% of breakfast. You have encouraged her family to bring in favorite foods; however, Ms. J states that she cannot eat any more.

Ms. J is 60 inches and weighs 94 pounds. Her albumin is 3.2 g/dL (normal = 3.5–5.0), hemoglobin is 10 g/dL (normal = 12–15), and hematocrit's is 30% (normal = 35%–47%). Her skin turgor on the sternum shows "tenting." You inform her that unless she eats better, her surgical wound may develop an infection.

After a day of coaxing, Ms. J tells you that she "feels bad" eating in front of the other patient in the room. Her roommate has a nasogastric feeding and is ventilated. Additionally, you note that Ms. J's room is at the end of the hall in the section where trays are served last. Her daughter also reports that Ms. J has not been "acting herself" since her husband died two months ago.

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Experiential Activities/ Clinical Experiences

Because mealtimes are more than the ingestion of nutrients, the goals of these experiences are to: (1) give the students an appreciation of the holistic nature of meals; (2) familiarize them with the various mealtime rituals used by different cultures and religious groups; (3) give them an awareness of the place food holds within various healing rituals; (4) inform them of the various members of the interdisciplinary team who would be helpful in making mealtime a more positive experience; (5) acquaint them with the affects of disabilities on ability to enjoy meals; and (6) increase their awareness of their own biases about mealtimes.

Activities

1. Take a diet history from each other, including mealtime issues.
2. Feed each other an entire meal.
3. Prepare a meal (unless there are dietary restrictions) and serve it to older clients. Have as much of the food prepared on the unit as possible. Have them include as many of the usual niceties of mealtimes as are feasible (e.g., tablecloths, dinnerware, flowers, music). Have the clients eat in small groups or one-on-one with students. Note the clients' subjective responses, especially their comments. Also note the objective responses, including how much food was eaten compared to the usual intake.
4. Visit a Senior Center Nutrition Program. Observe the nutritional value of the meal served, as well as the social

aspects and the culture of meals. If possible, accompany a Meals-on-Wheels or Meals-on-Heels (urban version) delivery person for one day to assess the type of meals served and the significance of the daily visit.

5. Interview each other and then your older clients regarding the rituals that are followed within their family unit, culture, or religion. Prepare a meal (or part of a meal) that is unique to your background and share it with the other students.
6. Research the role of food in healing. If possible, ask local healers—e.g., a Native American medicine man or lay healer—to discuss the various healing foods and the way they are prepared.
7. Keep a journal describing clients' meals at which they were either observers or assistants. Identify caregivers' strategies that seemed to promote pleasant meals and those that did not. Clients' behaviors that are objectionable at meals should also be noted. How do students react to these events?
8. Watch a movie that focuses on the rituals and meanings of meals—*Babette's Feast, Like Water for Chocolate, Tom Jones,* or *The Big Night*—and react to the ways in which meals transform people and their relationships.
9. Observe a swallow evaluation to determine aspiration risk.
10. Calculate your own Body Mass Index (BMI), and discuss its meaning as it relates to nutritional risk.

Topic 8: *Nutrition: Eating/Meals for Older Adults*

Evaluation Strategies

A. *Case Study:* Based on the case of Ms. J.

1. What cultural issues might be influencing Ms. J's issues with eating?
2. What physical/emotional problems could contribute to poor appetite, and what interventions might be helpful?
3. Does this client have any strengths/positive behaviors that the nurse can build on to promote better intake of food?
4. What alterations might make meals more appealing for this client?
5. What will be the outcome for this client if all of the issues regarding meals are not addressed?

B. *Test Questions*

1. If a client newly admitted to a long-term care facility is not eating well in the dining room, which one of the following responses could be recommended?

   A. Hold his or her tray until last, and offer it after everyone leaves the room.

   * B. Offer meals in a quieter, smaller space such as a solarium.

   C. Begin to assist with feeding this client, to ensure adequate intake.

   D. Offer meals at the nurses' station, where everyone can watch while they go about their work.

Evaluation Strategies

2. An effective method of promoting self-feeding is:

   A. Spoon-feed the client at the start of every meal. He or she will eventually follow through.

   B. Make instructions easier; sit all persons needing assistance near each other.

   C. Let the client try to self-feed for at least 10 minutes before assisting.

   * D. Use hand-over-hand repetitive gestures to cue the client to expected movements.

3. When an individual has a physical disability, the best way to eat is:

   A. Be seated, with the head hyperextended.

   B. Have the staff use a syringe for feeding, if the gag reflex is diminished.

   * C. Have the staff sit next to the client, facing him or her.

   D. Be assisted with meals while seated in a wheelchair, rather than in a bed.

Topic 8: *Nutrition: Eating/Meals for Older Adults*

Resources

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Web Sites:

Area Office of Aging. Information regarding meal programs with hyperlinks to other Federal nutrition programs.
www.aoa.dhhs.gov/nutrition

Florida International University. Clearing house for information on nutrition and aging; excellent hyperlinks.
www.fiu.edu/~nutreldr

U.S. Agriculture Department page. Nutrition information and hyperlinks.
www.palusda.gov/fnic